

MPSM ID Opener
Find the Eqn of the line
in $y = mx + b$

$y = mx + b$
 $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $m = \frac{4 - 1}{5 - 2} = \frac{3}{3} = 1$
 $y = 1x + b$
 $4 = 1(5) + b$
 $4 = 5 + b$
 $4 - 5 = b$
 $-1 = b$
 $y = 1x - 1$
 $y = x - 1$

$y = mx + b$
 $m = \frac{y_2 - y_1}{x_2 - x_1}$
 $m = \frac{5 - 2}{4 - 1} = \frac{3}{3} = 1$
 $y = 1x + b$
 $5 = 1(4) + b$
 $5 = 4 + b$
 $5 - 4 = b$
 $1 = b$
 $y = 1x + 1$
 $y = x + 1$

Mar 23-12:56 PM

Hmk. Take up #10 p 134

$(3, 350)$ $(5, 130)$
 x_1, y_1 x_2, y_2
 time x - ind
 distance y - dep

$m = \frac{y_2 - y_1}{x_2 - x_1}$
 $m = \frac{130 - 350}{5 - 3} = \frac{-220}{2} = -110$

$y = -110x + b$
 $(3, 350)$
 $350 = -110(3) + b$
 $350 = -330 + b$
 $350 + 330 = b$
 $680 = b$
 $y = -110x + 680$

y int = 680
 Starting distance from home was 680 km away
 $m = -110$
 Travelling 110 km/h towards home

Mar 23-1:40 PM

Review Finding the Eqn of a Line

i) From Two Points
 $A(-2, 3)$ $B(5, 9)$
 x_1, y_1 x_2, y_2

$m = \frac{y_2 - y_1}{x_2 - x_1}$
 $m = \frac{9 - 3}{5 - (-2)} = \frac{6}{7}$

$y = \frac{6}{7}x + b$
 $(5, 9)$
 $9 = \frac{6}{7}(5) + b$
 $9 = \frac{30}{7} + b$
 $9 - \frac{30}{7} = b$
 $\frac{63}{7} - \frac{30}{7} = b$
 $\frac{33}{7} = b$
 $y = \frac{6}{7}x + \frac{33}{7}$

Mar 23-1:52 PM

ii) Given slope and a point
 $y = 3x + b$ and passes through $A(6, 10)$
 x, y

$10 = 3(6) + b$
 $10 = 18 + b$
 $10 - 18 = b$
 $-8 = b$
 $y = 3x - 8$

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ii) Given y int and a point
 $y = mx - 2$ and passes through $(2, 4)$
 x, y

$4 = m(2) - 2$
 $4 = 2m - 2$
 $4 + 2 = 2m$
 $6 = 2m$
 $\frac{6}{2} = \frac{2m}{2}$
 $3 = m$

Wkbk
 p. 109-110
 q. 1-4, 7

$y = 3x - 2$

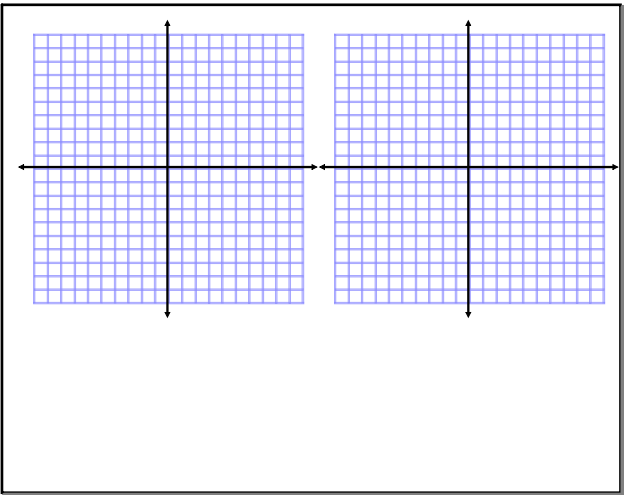
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Finding the Equation of a Line

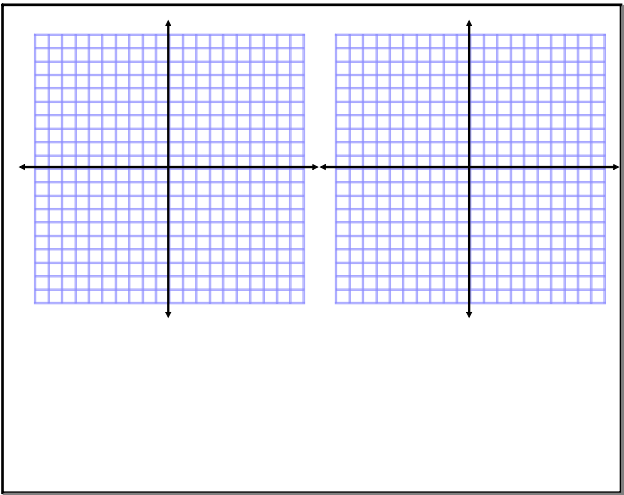
$y = mx + b$

a) From two points
 b) From slope and a point
 c) From y -int and a point

Feb 27-2:31 PM



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